

Date: Tuesday, 8/21/2007 3:43:56 PM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : TOW RING
Job Number : 34196	
Estimate Number : 12928	
P.O. Number : <i>N/A</i>	Part Number : D2968043UP
This Issue : 8/21/2007 S.O. No. : <i>N/A</i>	Drawing Number : D2968
Prsht Rev. : NC	Project Number : N/A
First Issue : <i>N/A</i> Type : MACHINED PARTS	Drawing Revision : B1
Previous Run : 33362	Material : <i>N/A</i>
Written By : <i>[Signature]</i>	Due Date : 9/20/2007
Checked & Approved By : <i>[Signature] 07.08.22</i>	Qty: <i>(22)</i> Um: Each
Comment : Est Rev:A New Issue 07-07-04 JLM	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	34196A	STEM
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✓ B34196 → 20 Cpl 07.10.11



(22)

Comment: Sub-Component STEM 2x
 D2968-3 B *33362 A* / ~~33362 A~~

[Signature] 07/09/09

2x

2.0	34196B	RING
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✓ B33362 → 20 Cpl 07.10.11



(22)

Comment: Sub-Component RING
 D2968-5 B *30275 2x* / ~~30275 2x~~

[Signature] 07/09/09

2x

3.0	LARGE FAB 1	LARGE FABRICATION RESOURCE 1
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Cpl 07.10.11



(22)

Comment: LARGE FABRICATION RESOURCE 1
 Weld D2968-3 & D2968-5 as per Dwg D2968 & QSI 004 using 4130 welding rod Identify as D2968-043
 Batch: *M102421*

[Signature] 07/09/09

2x

4.0	QC9	VISUAL WELDING INSPECTION
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Comment: VISUAL WELDING INSPECTION

[Signature] 07.10.11 (22)

5.0	QC5	INSPECT WORK TO CURRENT STEP
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Comment: INSPECT WORK TO CURRENT STEP

[Signature] 07/10/11 (22)

6.0	OUTSIDE SERV.30	OUTSIDE SERVICES-MACH
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Comment: Sub-Contracting PURCHASING
 Issue P/O: *4785*
 Description: D2968-043 to heat treat to ultimate tensile strength
 125ksi as per Dwg D2968
 Conformity sheet required

Cpl 07/10/11

(22)

22 (22)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: D Date: 01/11/19
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 8/21/2007 3:43:56 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: TOW RING

Job Number: 34196

Part Number: D2968043UP

Job Number:



Seq. #:

Machine Or Operation:

Description :

Issue P/O: 4786
Cad Plate per QQ-P-416F Class I Type II
Conformity sheet required

C207110111

(22)

7.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1
Receive & Inspect For Transit Damage
Ensure certificate of conformity is attached

11/1/08

SD

225

8.0

QC5



INSPECT WORK TO CURRENT STEP
Parts were missing
certs.



Comment: INSPECT WORK TO CURRENT STEP

11-11-19

(22)

9.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1
Identify and Stock
Location: 5444

11-11-19

DS

07/11/19

10.0

QC21



FINAL INSPECTION/W/O RELEASE



(22)

Comment: FINAL INSPECTION/W/O RELEASE

11-11-19

Job Completion



11-11-19

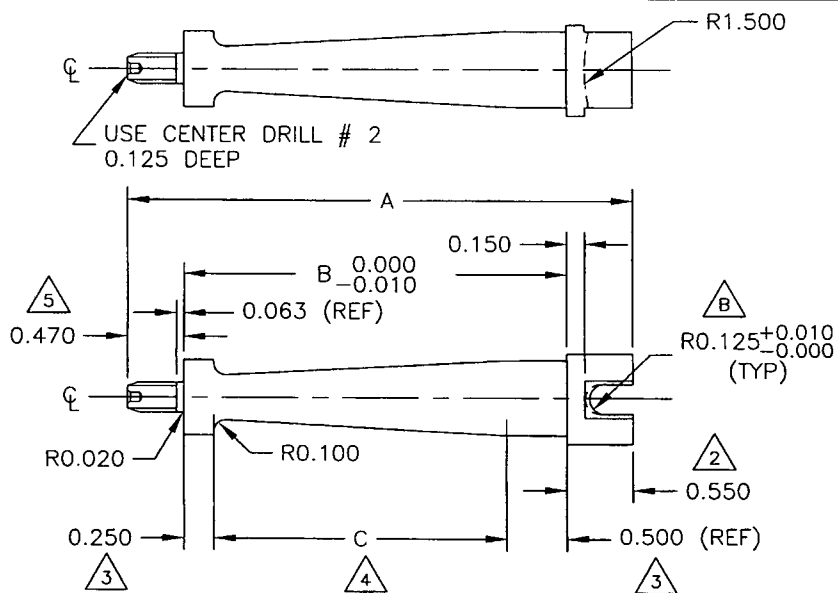
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



PART NUMBER	A	B	C
D2968-1	5.040	4.020	3.270
D2968-3	4.200	3.180	2.430

D2968-1/-3 STEM

D2968-1 AND D2968-3 STEM:

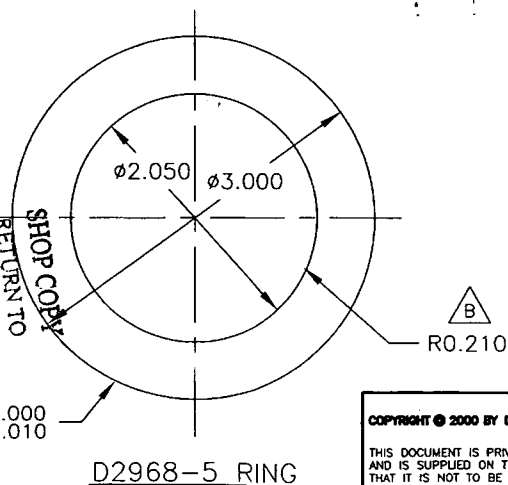
- 1) MATERIAL: AISI 4130N ROUND BAR PER MIL-S-6758
OR AMS 6348/6370/6528
(REF DART SPEC M4130N-RX.XXX)
- 2) $\phi 0.750$ O.D.
- 3) $\phi 0.625$ O.D.
- 4) MACHINE UNIFORM TAPER FROM $\phi 0.363$ O.D.
TO $\phi 0.625$ O.D.
- 5) 1/4-28 UNF THREAD WITH 0.063 GRIP
- 6) MACHINE ALL INSIDE EDGES WITH A 0.010 RADIUS
UNLESS OTHERWISE INDICATED
- 7) ALL DIMENSIONS ARE IN INCHES
- 8) TOLERANCES ARE PER DART QSI 018 UNLESS
OTHERWISE NOTED

D2968-5 RING:

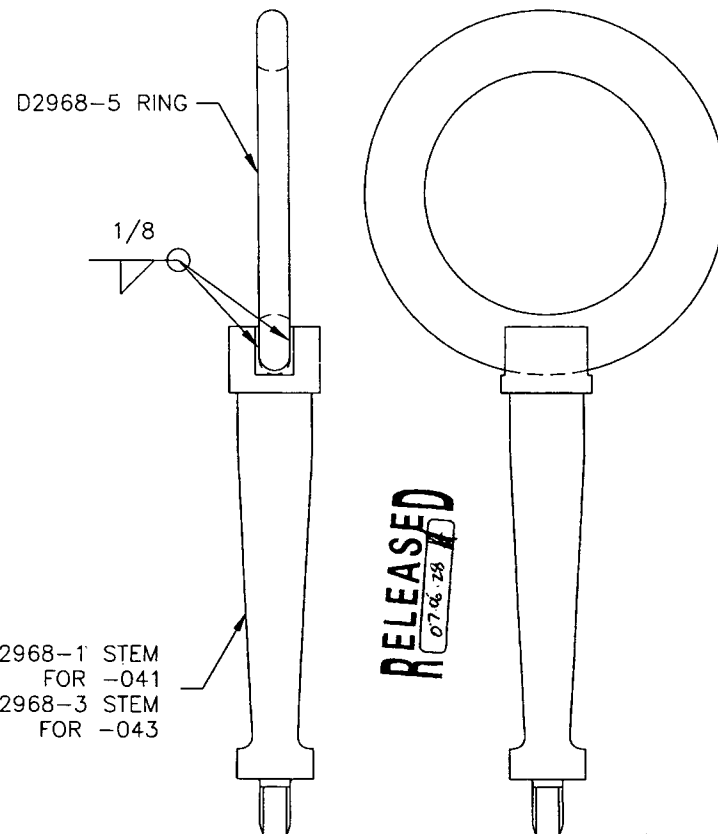
- 9) MATERIAL: AISI 4130N TUBING PER MIL-T-6736
OR AMS 6360/6361/6362/6371/6373/6374
(REF DART SPEC M4130NT3000W500)

- 10) ALL DIMENSIONS ARE IN INCHES
- 11) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

NO. 34190
WORK ORDER
UNCONTROLLED COPY
SUBJECT TO ATTACHMENT
WITHOUT NOTICE
ENGINEERING
RETURN TO
SHOP COPY



D2968-5 RING



USE D2968-1 STEM
FOR -041
USE D2968-3 STEM
FOR -043

D2968-041 AND D2968-043 TOW RING:

- 12) WELD PER QSI 004 ON ALL EDGES BETWEEN STEM AND RING
- 13) HEAT TREAT TO MIN ULTIMATE TENSILE STRENGTH OF 125 KSI
- 14) FINISH: CAD PLATE ENTIRE ASSEMBLY PER
QQ-P-416F CLASS I TYPE II
POWDER COAT WHITE (REF 4.3.5.2) PER DART
QSI 005 4.3 (EXCEPT THREADS)

C	07.04.17	2.050 WAS 2.000, UPDATE NOTES
B	00.05.31	R0.125 AND R0.210 WERE 0.060 x 45°
A	00.03.07	NEW ISSUE
DESIGN	DRAWN BY	DART DART AEROSPACE LTD. MARKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO. D2968
DATE	TITLE	SHEET 1 OF 1 SCALE 1:1
07.04.17	TOW RING	

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DART AEROSPACE LTD.



VAC AERO

INTERNATIONAL INC.

RELEASE NOTE

GST No.: R105468102

OAK 91931-1



HEAD OFFICE
1371 SPEERS ROAD, OAKVILLE, ONTARIO
CANADA L6L 2X5
TEL: (905) 827-4171 FAX: (905) 827-7489



2009 WYECROFT ROAD, UNIT B
OAKVILLE, ONTARIO
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QUEBEC DIVISION
7450 RUE VERITE STREET, ST. LAURENT, QUÉBEC
CANADA H4S 1C5
TEL: (514) 334-4240 FAX: (514) 334-6269

10/25/2007

MM/DD/YYYY

PAGE: 1

BILL TO: 1DAR01
DART AEROSPACE LTD.
1270 ABERDEEN ST.
HAWKESBURY, ON

SHIP TO: MANCO DOMPLEX
4660 HICKMORE
ST. LAURENT QC

K6A 1K7

H4T 1K2

DATE SHIPPED	SHIP VIA	F.O.B.
10/25/2007	PUROLATOR# 7684382	ORIGIN
CUSTOMER P/O No.	JOB No.	TERMS
PO00004785		COD

PART No.	DESCRIPTION	UOM	QTY ORD	QTY SHPD	TEST RESULTS
D2968-043	TOW RING B34196	EA	22	22	
<p>Process Specifications: Procedure: 4047 HEAT TREATED TO 175 KSI MIN PER AMS 2759-1D 100% HARDNESS TESTED PER ASTM E-18, HRC 27-32.5 MATERIAL: 4130 PS# 214746</p>					

100% HARDNESS TESTED

04: 22 Pcs.
20/11/07
2504/11



I hereby certify that the material covered by this release note has been inspected and tested and conforms to all specifications relevant thereto in accordance with the conditions of the contract / or purchase order.

ON BEHALF OF VAC AERO INTERNATIONAL INC.

Authorized Q.C. Inspector



VACUUM BRAZING - HEAT TREATING - SPECIAL PROCESSING - FURNACE EQUIPMENT
TURBINE COMPONENT OVERHAUL - PLASMA AND OTHER COATINGS



HEAT
TREATING

MANCO DOMPLEX

8895 Crescent 3
Anjou (Québec) H1J 1B6
Tél.: 514-355-7867
Fax: 514-355-8750

CERTIFICAT DE CONFORMITÉ CERTIFICATE OF COMPLIANCE

#19460

DART Aerospace Ltd
Client / Customer
104786
Votro # de commande / Your purchase order #

D29680430P B34196
de la pièce / part #
106015
Notre # de bon de livraison / Our packing slip #

Inspecteur / Inspector <i>Renaud</i>	Date, équipe / Date, shift <i>15 Nov 2007</i>
Placage / Plating <i>QQP 416 P CLASSI TYPE 11</i>	
Quantité totale / Total quantity <i>22</i>	Quantité inspectée / Inspected quantity <i>22</i>
Adhésion / Adhesion <i>POAND</i>	
Épaisseur / Thickness L.C.D.	H.C.D. Moy. / aver. <i>0.0005</i>
Coulisures, taches / Leach, spots <i>Non</i>	Rugosité / Roughness <i>Non</i>
Quantité approuvée / Approved quantity <i>22</i>	Quantité rejetée / Rejected quantity

Commentaires / Comments

Nous certifions que les pièces énumérées ci-dessus ont été faites en conformité avec vos dessins et spécifications et rencontrent les exigences contenues dans ces dessins et/ou spécifications.

We hereby certify that the parts listed above have been made in accordance with your drawings and specifications and are correct to the requirements contained in those drawings and/or specifications.

Signé au nom de
Signed on behalf of

**MANCO
DOMPLEX**